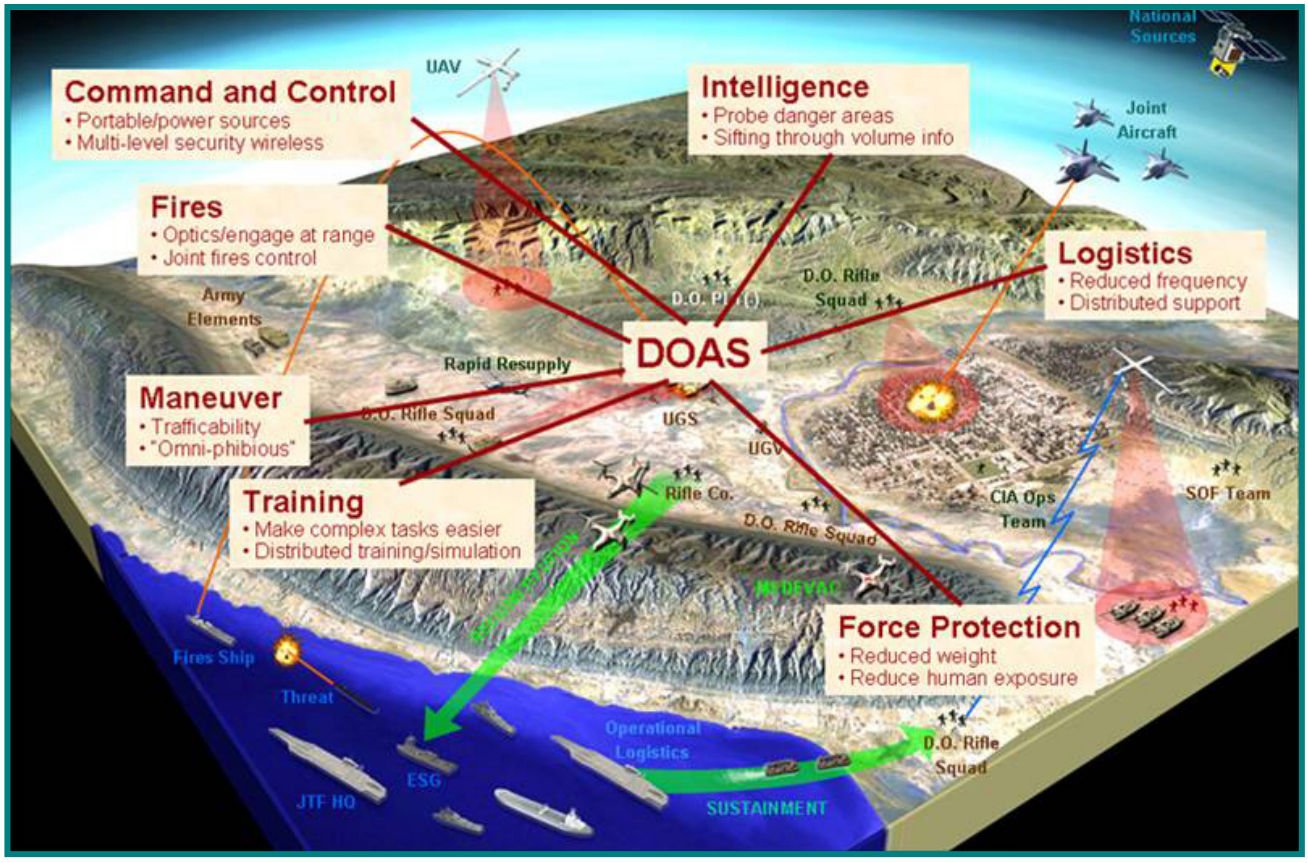
Dr. Larry Stotts
Deputy Director
Advanced Technology Office

Wrap Up

Basically, it all comes down to this: We invent the things that make network centric warfare work. Our goal is to provide leap-ahead, net-centric capabilities to all Combatant Commands, through either technology transition to the acquisition process or VFR direct.

It also should be clear to you that ATO does both technology and system developments. In this regard, we are unique. We are the only office that walks both sides of the DARPA street. And this gives us both a perspective and operational latitude that allows us to be especially responsive to the needs of the Services and Combatant Commands.

In the last couple years, ATO has taken on responsibility for larger scale maritime systems development. We've become the incubator for non-traditional studies and projects aimed at helping the Navy and Marine Corps rethink how they equip and fight in some unaccustomed places. In 2003, Dr. Tether and Admiral Clark initiated a Littoral Access study that looked into new ways Naval and Marine Forces can achieve safer, more effective brown water access. In 2005, Dr. Tether and General Hagee augmented the above by initiating the Distributed Operations study LtCol Tovar briefed. As he pointed out, our intent is to provide better clarity on Marine operations



supporting Littoral Access, as well as their role in Security and Sustain Operations.

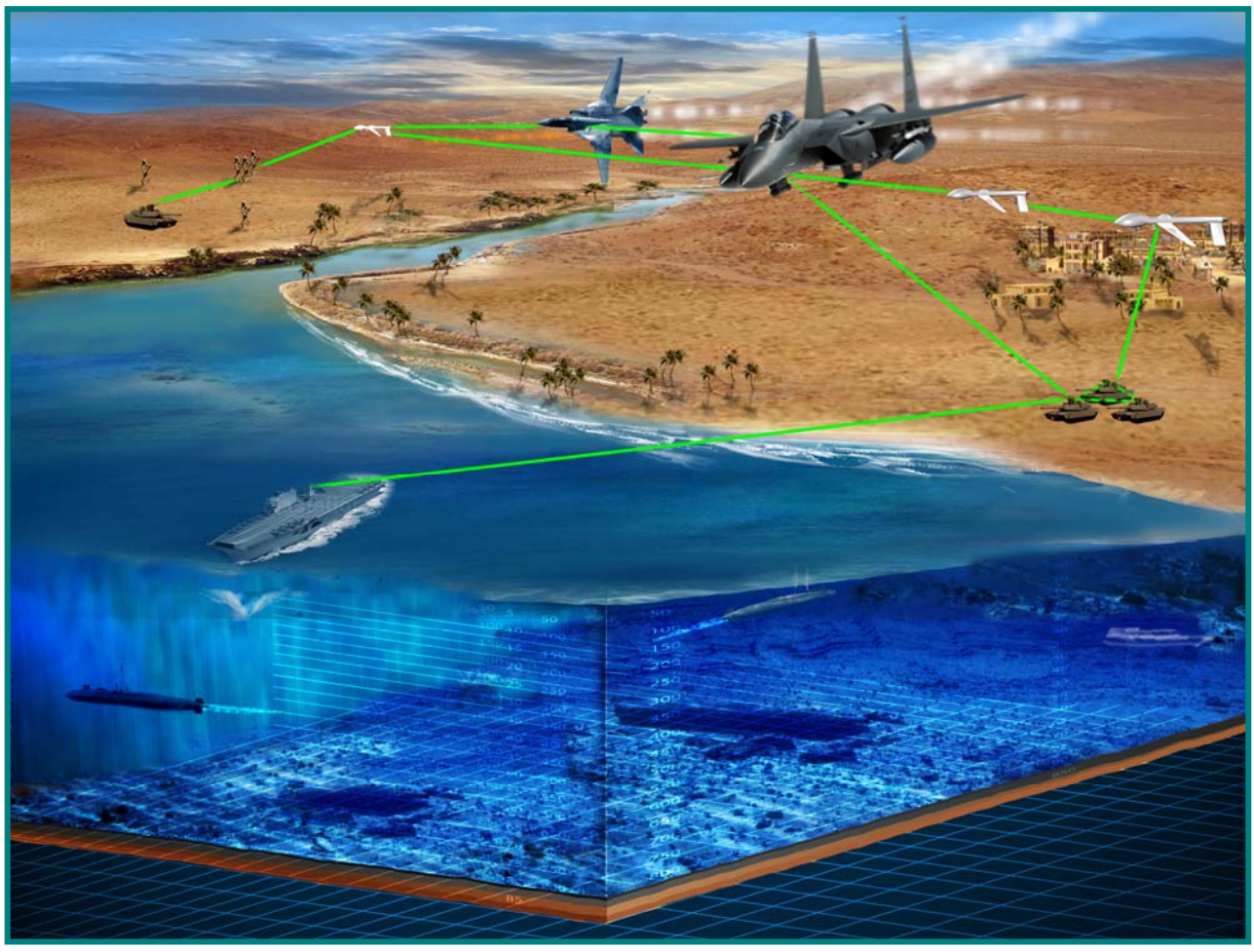
Both of these studies are focused, specific challenges that warfighters face and are developing concepts for new, force-multiplying technologies and systems to meet those challenges. To give you an idea of what we're talking about, here are some of the challenges derived from the Littoral Access Study:

- Advanced air defense suppression
- Countermine warfare
- Air-to-surface missiles
- Small boat and unconventional anti-surface warfare, and
- Force insertion and sustainment

From a network-centric warfare point of view, the littoral force must have networking capabilities that provide:

- Secure, reliable mobile communications with data rates greater than 100 kilobits per second
- Readily deployable, modular communications independent of fixed infrastructure
- Multiple, seamlessly interoperable modes of communication—RF, acoustic, deployable fiber, and free space optical.

Let's turn to our efforts in Security and Sustain Operations. Today in Iraq and Afghanistan, our Soldiers and Marines face what General Charles Krulak, the 31st Commandant of the US Marine Corps, calls "The Three-Block War." In the first block, they're delivering humanitarian aid or assisting others who are providing aid. In the second, they're conducting stabilization or peacekeeping operations. In the third, they're engaged in high-intensity combat.



Wrap Up

What makes the Three-Block War especially difficult is that our ground forces must be prepared to conduct these operations simultaneously and in close proximity to one another.

DARPA is working with US Joint Forces Command and the US Army to develop tools that will enable commanders and their staffs to discover and assess effects-based options for winning the Three Block War, as well as major combat operations. Called Integrated Battle Command, this capability focuses on achieving the full range of desired effects against not only an adversary's military system but his political, economic, social, infrastructure, and other nonmilitary systems, without endangering friendly forces.

That's ATO in a nut shell. "We invent the things that make network-centric warfare work." If you have ideas in these areas, we want to hear from you.

If you find that our program managers don't seem smart enough to appreciate your great ideas, then become a project manager yourself and get your ideas appreciated.